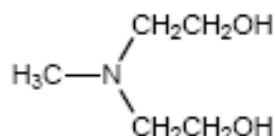


Technical Bulletin**BHEMA**

BHEMA (bis-(Hydroxyethyl)methylamine) is a clear, water-white, hygroscopic liquid with an ammoniacal odor.

**APPLICATIONS**

BHEMA is a DEA-free tertiary amine used to provide reserve alkalinity and pH boost in metalworking fluids. It is a stronger amine than TEA, having a pKa more like that of DEA. Its low vapor pressure is an asset where amine volatility is a concern.

SALES SPECIFICATIONS

<u>Property</u>	<u>Specifications</u>	<u>Test Method*</u>
Appearance	Clear and substantially free of suspended matter	ST-30.1
Color, Pt-Co	150 max.	ST-30.12
Methyldiethanolamine, wt%	99 min.	ST-5.5
Water, wt%	0.5 max.	ST-31.53, 6

*Methods of Test are available from Huntsman Corporation upon request.

ADDITIONAL INFORMATION**Regulatory Information**

CAS Number 105-59-9

See SDS for all regulatory information.

Shelf Life

The product should retain its conformance to sales specifications for a period of at least two years after date of manufacture if the product is stored at less than 100°F in its undamaged, unopened, factory packaged container.

In general, the user should determine the suitability of any chemical compound, no matter what the shelf life or length of time of storage. Each user should conduct a sufficient investigation to establish the suitability of any product for his intended use.

Typical Properties

Flash point, PMCC, °C (°F)	140 (285)
Boiling point, °C (°F)	247 (477)
Freezing point, °C (°F)	-21 (-5.8)
Specific gravity, 20/20°C	1.0
Weight, lb/gal, 20°C	8.69
Vapor pressure, mmHg, 20°C (68°F)	< 0.01
Viscosity, cSt, 38°C (100°F)	37
Water solubility (%)	Complete

TOXICITY AND SAFETY

For additional information on the toxicity and safe handling of this product, consult the Safety Data Sheet prior to use of this product.

HANDLING AND STORAGE

Carbon steel storage tanks, constructed according to a recognized code, are generally satisfactory for storage of BHEMA. The solvent properties and alkaline nature of BHEMA should be considered when installing handling and storage facilities. BHEMA will react with copper to form complex salts, so the use of copper and alloys containing copper should be avoided.

Carbon steel transfer lines, at least 2 inches in diameter and joined by welds or flanges, are suitable. Screw joints are subject to failure unless back-welded because BHEMA will leach conventional pipe dopes. TEFLON¹ elastomer or polypropylene are satisfactory for use with flange connections. Avoid the use of elastomers such as neoprene or nitriles for gasketing materials.

Centrifugal pumps are preferred with BHEMA, although carbon steel rotary pumps can be used. Rotary pumps should be equipped with externally lubricated bearings. A Durametallc Type RO-TT mechanical seal is suitable. Garlock 234, 239, or equivalent can be utilized as pump packing.

AVAILABILITY

BHEMA is currently available in tank wagons and tank cars and drums of 460 pounds (208 kilograms) net weight. Small samples can be obtained by contacting our sample department at 1-800-662-0924.

¹ TEFLON is a registered trademark of The Chemours Company.